



## Class Size and Student Diversity: Two Sides of the Same Coin

by Bernie Froese-Germain, Rick Riel & Bob McGahey

### A View From the Classroom

Among Canadian teacher unions, discussions of class size are increasingly being informed by the importance of considering the diversity of student needs within the classroom (often referred to as class composition).

Gordon Thomas, Executive Secretary for the Alberta Teachers' Association, provides this reality check on the relationship between teachers, class size and student diversity:

Let's bring class size and composition within Alberta schools into focus. A high school teacher might begin her day with a class of 37 students. Four of these students have learning disabilities, five have just moved to Alberta for the booming economy, one has serious behaviour issues, three are repeating the course from last year, seven are below grade level, two arrive late to class on a regular basis, and one is not attending class at all due to instability in his home life. This is just the first of several large classes she will teach this day. In the past, there may have been relief in the form of support staff in the classroom, funding for reducing class sizes across the K-12 system or personnel to provide a comprehensive approach to services that meet the diverse

learning needs of all students, but these all appear to be vanishing with the instability associated with funding for education in Alberta. (Thomas, 2011)

Thomas goes on to pose a series of questions that will resonate with teachers across the country:

Now, does this learning context of 37 diverse individuals set the stage for a constructive, personalized, and rewarding learning environment for our children? How frequently might positive teacher-student

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interactions occur? To what extent could a strong sense of belonging and community among students be created in this classroom? How often would innovative pedagogical practices be undertaken by a teacher to transform the learning in such a challenging context?

These questions raise issues that go beyond the demonstrated positive impact that smaller class size has on student achievement, as important as that is, and speak to students' broader learning experiences at school.

### What Class Size Research Says About Education Quality and Equity

For teachers, both class size and diversity matter.

Teachers consistently adapt their teaching to address the individual needs of the learners in their classroom. As the classroom becomes larger and more diverse, this task becomes increasingly more onerous.

Class size and composition also have obvious implications for inclusive education – if class composition is the

degree of student diversity, broadly conceived, in the classroom, inclusion is the extent to which teachers have – or not – the necessary supports and services to be able to effectively integrate students with special educational needs into their classrooms and schools. Indeed research has demonstrated that “smaller classes may have the greatest positive impact on students with the greatest educational needs.” (OISE-UT/CEA, 2010)

An extensive review of the research on class size by U.S. educational researchers Bruce Biddle and David Berliner concluded that:

- When it is planned thoughtfully and funded adequately, long-term exposure to small classes in the early grades generates substantial advantages for students in American schools,

reinforces the finding that smaller classes are more equitable because they allow teachers to more effectively address the needs of all the students in their classroom, particularly the needs of the most

### Class size reduction ranked as the highest spending priority in seven of the eight CTF surveys conducted from 1995 to 2008, regardless of variations in the spending priorities examined in each respective survey.

and those extra gains are greater the longer students are exposed to those classes;

- Extra gains from small classes in the early grades are larger when class size is reduced to less than 20 students;
- Extra gains from small classes in the early grades are found for various academic topics and for both traditional measures of student achievement and other indicators of student success;
- Extra gains from small classes in the early grades are retained when students are returned to standard-size classrooms, and these gains are still present in the upper grades and the middle and high school years. (excerpt from Canadian Council on Learning, pp. 2-3)

In addition, their research review

disadvantaged students.

They report that, "although extra gains from small classes in the early grades appear for all types of students (and seem to apply equally to boys and girls), they are greater for students who have traditionally been educationally disadvantaged; initial results indicate that the greater gains associated with small classes in the early grades for students who have traditionally been educationally disadvantaged are also carried forward into the upper grades and beyond" (as cited in Canadian Council on Learning, pp. 2-3).

Smaller classes can provide teachers with the opportunity to teach the way they aspire to teach. In a major study of Ontario's primary class size reduction initiative implemented from 2004-2008,

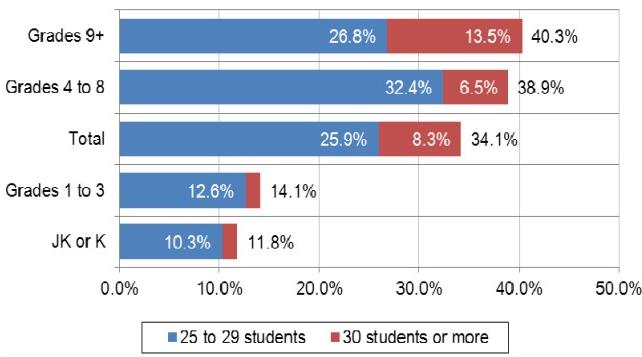
teachers reported that teaching in small classes has important pedagogical benefits:

While the large literature base on class size reduction includes some contradictory research interpretations, it also includes a number of relatively robust findings. The research confirms that class size reduction does provide the environment in which teachers can teach differently. In smaller classes, they interact with individual students more frequently and use a greater variety of instructional strategies. They can create more opportunities for higher-order co-construction of meaning by students. They also may spend out-of-classroom work time on more creative planning (and less on routine marking), and they may interact more frequently with other teachers and adults in support of classroom teaching. (Bascia, 2010)

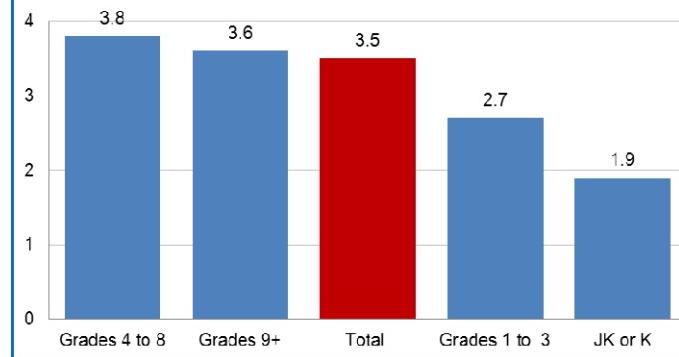
Teachers in the study also reported improved student behaviour and engagement with classroom activities in small classes. A classic win-win – for students, teachers, and parents.

It's not difficult to deduce how this could disproportionately benefit students with special educational needs, and why it's a high priority issue for teachers and their organizations. To cite one example,

**Chart 1. Percentage of Reported Classes with 25 Students or More, by Grade Level**



**Chart 2. Average Number of Students with Identified Exceptionalities per Reported Class, by Grade Level**



the Manitoba Teachers' Society annual member survey conducted in November 2010 found that the biggest concern of Manitoba teachers is class size and class composition.

The Canadian public also supports smaller class sizes. In our public opinion polling conducted by Vector Research & Development, class size reduction ranked as the highest spending priority in seven of the eight surveys conducted from 1995 to 2008, regardless of variations in the spending priorities examined in each respective survey.

Last spring CTF conducted a national teacher survey on the theme of *The Teacher Voice on Teaching and Learning*. As part of the survey teachers were asked what changes they would make to the education system for the benefit of student learning. Their responses touched on a range of issues and, not surprisingly, class size and class composition were clearly identified as priorities. Provision of the necessary supports and services to allow teachers to help students with special educational needs was another high priority.

### CTF National Teacher Survey

In order to get a snapshot of what class size and composition look like across the country, CTF recently conducted a national survey of

nearly 3,800 teachers representing 9,894 classes in English and French schools. The sample teacher pool was drawn from 12 participating CTF member organizations.

These are among the survey findings.

Average class size is 21.3 students, ranging from 22.1 students for grades 4-8 to 19 students for junior kindergarten or kindergarten (JK-K). English schools (including immersion) have an average class size of nearly 22 students, while French as a first language schools have a slightly smaller average class size of just over 19 students.

Average class size data of course only provides a piece of the overall picture. Our analysis of the distribution of class size by grade level reveals that:

- over a third of the classes for all grade levels combined contained 25 students or more (8.3% contained 30 students or more).
- for grades 4-8, nearly 39% of classes contained 25 students or more (6.5% contained 30 or more).
- for grades 9 and over, 40.3% of classes contained 25 students or more (13.5% – over 1 in 7 classrooms – contained 30 or more students).

While the numbers were smaller at the primary level as expected (due in

part to class size reduction initiatives in some jurisdictions), there were still significant numbers of classes exceeding 25 students:

- for grades 1-3, just over 14% of classes contained 25 students or more
- for JK-K, nearly 12% of classes contained 25 students or more [see Chart 1]

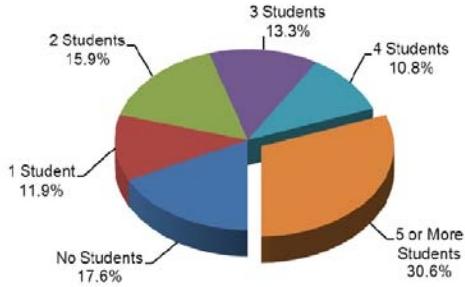
We also surveyed teachers on their class composition, specifically:

- students with identified exceptionalities (defined as those students formally identified as having behavioural problems or mental or physical disabilities, as well as other special needs students including gifted students) and;
- English Language Learners and French Language Learners (defined as students whose first language differs from the school's primary language of instruction, and who may require focused educational supports to assist them in attaining proficiency in that language).

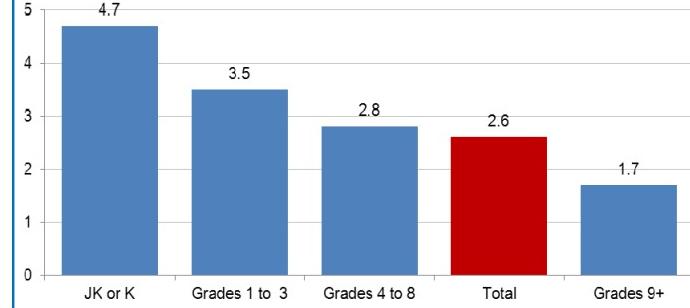
The average number of students with identified exceptionalities per class was 3.5, ranging from 3.8 students for grades 4-8 to 1.9 students for junior kindergarten/kindergarten [see Chart 2].

Students with identified exceptionalities accounted for 16.3%

**Chart 3. Percentage Distribution of Grade 4 and Over Reported Classes, by Number of Students with Identified Exceptionalities**



**Chart 4. Average Number of English Language Learners and French Language Learners per Reported Class, by Grade Level**



of total students in the surveyed classrooms, ranging from respective shares of 17.1% for grades 4-8 to 10% of students for junior kindergarten/kindergarten.

As with class size, average numbers only tell part of the story. Of classes surveyed, over 81% have at least one student with formally identified exceptionalities, and 27.7% contain 5 or more students with identified exceptionalities.

In grades 4 and over, not only were class sizes generally larger but almost 1 in 3 (30.6%) classes contained 5 or more students with identified exceptionalities [see Chart 3]

In addition, the average number of English Language Learners and French Language Learners (ELL/FLL students) per class was 2.6. The prevalence was higher the lower the grade, ranging from 4.7 students for junior kindergarten/kindergarten to 1.7 students for grades 9 and over [see Chart 4].

ELL/FLL students accounted for an average 12.2% of total students in the classroom, ranging from respective shares of 24.7% for junior kindergarten / kindergarten to 8.2% for grades 9 and over.

### Lessons Learned

We can begin to draw some important lessons from this survey.

1. Class size matters, but so does class composition - in other words, when we talk about class size, we also need to be thinking about the degree of student diversity in those classes. In order to enhance quality and equity in our public schools, they need to be addressed together.

2. Student diversity in the contemporary Canadian school setting encompasses many different types of students with diverse and complex needs and learning styles. Our survey looked at students formally identified as having behavioural problems, mental or physical disabilities, as well as gifted students, and ELL/FLL students – however it did not include students with learning exceptionalities waiting to be identified, nor did it include students with other important educational needs, for example students from low-income families (and the poverty-related issues of hunger, illness, instability), students with mental health problems, or immigrant and refugee students.
3. Data on average class size can only tell a small part of the story. The degree of student diversity as a proportion of the total class size needs to be taken into consideration. While it was beyond the scope of our present study, another important factor to consider is how well teachers are prepared and supported to effectively provide for the diversity of student needs – for example in terms of the provision of special education and ELL/FLL teachers and programs, school counselors, and ongoing professional development.

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